














Fractions: Ordering Decimals

<p>Aim: Read, write, order and compare numbers with up to three decimal places.</p> <p>I can order numbers with up to three decimal places.</p>	<p>Success Criteria: I can read and write numbers with up to three decimal places.</p> <p>I can compare the value of digits in the same place value position.</p> <p>I can order numbers with different numbers of decimal places.</p>	<p>Resources: Lesson Pack</p> <p>Whiteboards and pens - class set</p>
<p>Key/New Words: Decimal place, decimal point, tenths, hundredths, thousandths, compare, place value.</p>	<p>Preparation: Line Them Up Cards - one set per group Differentiated Pet Shop Decimal Ordering Activity Sheets - one per child</p>	

Prior Learning: It will be helpful if children understand decimal place value, including thousandths.

Learning Sequence

	<p>Decimal Missing Numbers: Children identify the missing decimal numbers in the decimal subtraction calculations shown on the Lesson Presentation. Discuss how number bonds to 100 can be useful.</p>	
	<p>Ordering Decimals: Use the text and images displayed on the Lesson Presentation to remind the children that to order decimal numbers we look at the place value of the digits in each number, starting with the digits in the largest place value position. Remind the children that, if the numbers have the same digit in a place value position, we look at the digits in the next place value column to the right until we find a difference.</p>	
	<p>Line Them Up: Provide each group with the Line Them Up Cards. The children work together to line up the cards in order from smallest to biggest, explaining their reasoning using the language of tenths, hundredths and thousandths.</p>	
	<p>Pet Shop Decimal Ordering: Children complete the differentiated Pet Shop Decimal Ordering Activity Sheets to show they can order numbers with up to three decimal places.</p> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div data-bbox="213 1151 582 1323">  <p>Children order the weights of different animals. The decimal numbers can be ordered by comparing the ones and tenths predominantly.</p> </div> <div data-bbox="612 1151 981 1323">  <p>Children order the weights of different animals. The decimal numbers can be ordered by comparing the tenths predominantly.</p> </div> <div data-bbox="1011 1151 1380 1323">  <p>Children order the weights of different animals. The decimal numbers can be ordered by comparing the tenths and hundredths predominantly.</p> </div> </div>	
	<p>Decimal Number Puzzle: Children use the clues shown on the Lesson Presentation to discover three mystery decimal numbers. They then position them in order on the given thousandths number line.</p>	

Masterit

- Snakeit:** Give out the [Line Them Up](#) cards or ask children to write a decimal number on their whiteboards (ensure that each child's number is unique). Children then line themselves up in order from the smallest to the largest number. As an additional challenge, remove some children from the line and ask them to write a number that will allow them to stand next to a particular person.
- Puzzleit:** Ask children to cut out a shape using squared paper. It must be the full length of the page and leave the two centre columns intact, but the rows should be different lengths either side of the centre. Draw decimal points down the line between the two centre columns. Children then complete the grid with numbers of their choosing, but their list of numbers must be in order from smallest to biggest.



Maths

Fractions

Maths | Year 5 | Fractions | Decimal Place Value | Lesson 3 of 3: Ordering Decimals

Ordering Decimals



Aim

- I can order numbers with up to three decimal places.

Success Criteria

- I can read and write numbers with up to three decimal places.
- I can compare the value of digits in the same place value position.
- I can order numbers with different numbers of decimal places.

Decimal Subtraction Missing Numbers



What is the missing number in this decimal number subtraction calculation?

How can we use our number bonds to 100 to help find the missing number?

$$1 - 0.42 = 0.58$$

$$1 - 0.74 = 0.26$$

$$1 - 0.91 = 0.09$$

$$1 - 0.27 = 0.73$$

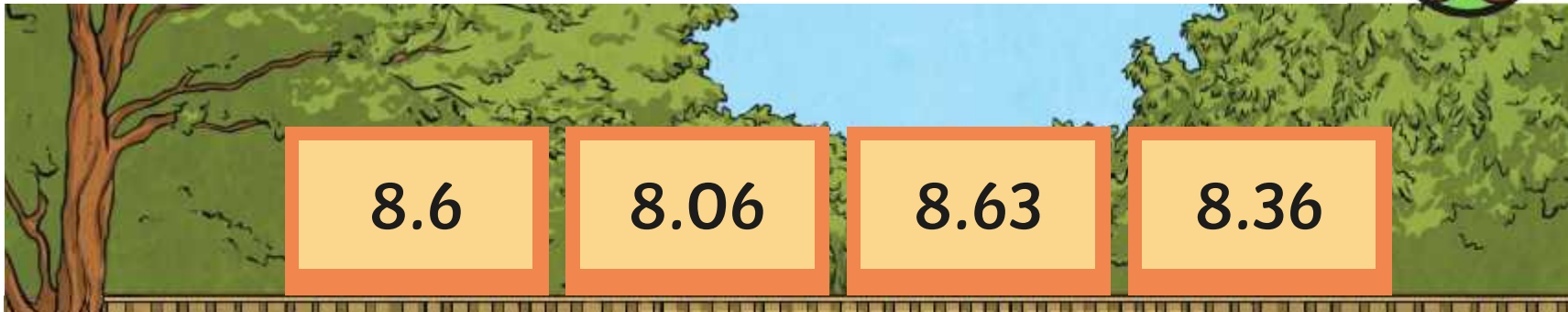
Ordering Decimals



To order decimal numbers we compare the place value of the digits in each number, starting with the digits in the largest place value position.

If the numbers have the same digit in a place value position, we look at the digit in the next place value position to the right until we find a difference.

Ordering Decimals



Finally, compare the digits in the hundredths columns. What do you notice?

Compare the digits in the tenths do you notice?

The two remaining decimals have six tenths.

8.6 has zero hundredths and 8.63 has three hundredths. Therefore, 8.63 is the biggest number.



Line Them Up



1.0			32	1.2	1.231
1.2			302	1.32	2.312
2.			031	2.1	3.213
2.103	2.13	2.			.233
3.01	3.012	3.0			313
3.102	3.12	3.2			3.31

Work together to line up the cards in order from smallest to biggest.

Explain your reasoning using the language of tenths, hundredths and thousandths.

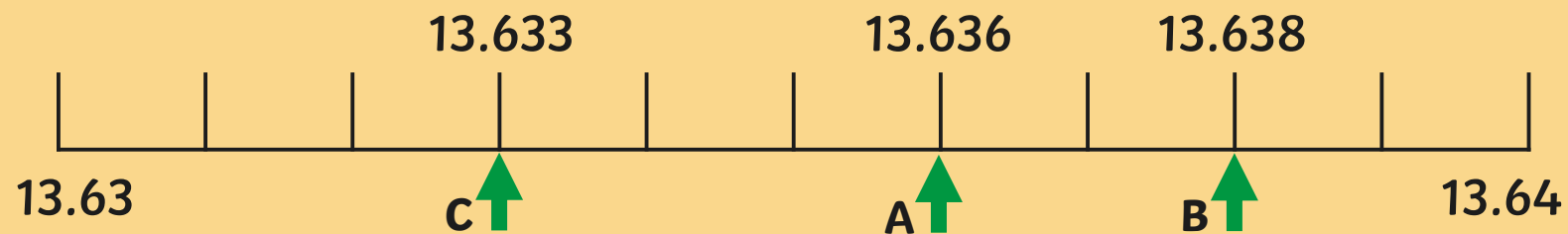
Pet Shop Decimal Ordering



Decimal Number Puzzle



Three mystery decimal numbers appear somewhere on this number line. Use the clues to work out what the numbers are, then position them in order on the number line.



Mystery Number A rounds to 13.64 when rounded to the nearest hundredth. It is two thousandths less than mystery number B.

Mystery Number B is two thousandths less than 13.64.

Mystery Number C is three thousandths less than mystery number A.

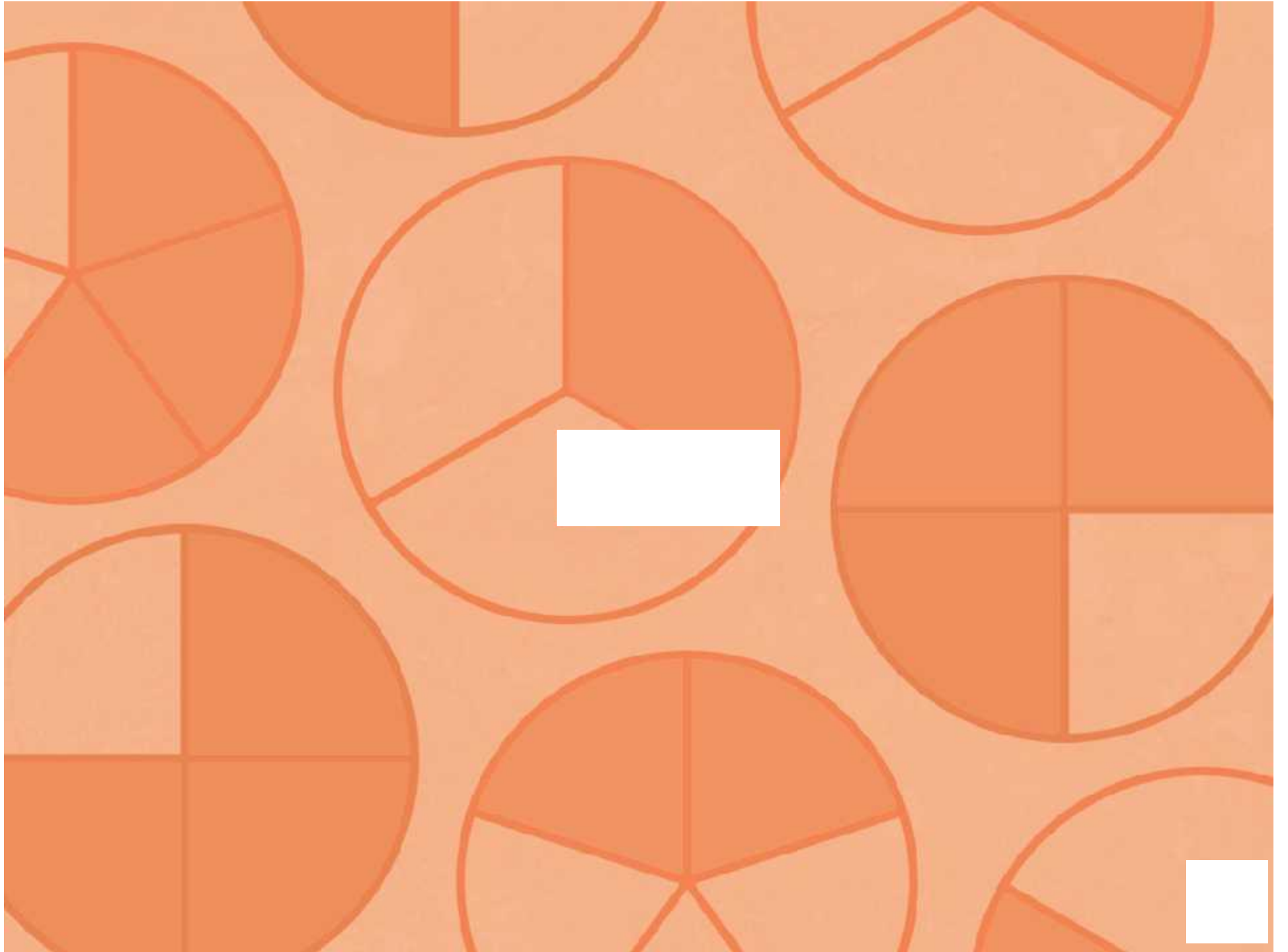
Aim



- I can order numbers with up to three decimal places.

Success Criteria

- I can read and write numbers with up to three decimal places.
- I can compare the value of digits in the same place value position.
- I can order numbers with different numbers of decimal places.



Aim: I can order numbers with up to three decimal places.				Date:					
				Delivered By:			Support:		
Success Criteria	Me	Friend	Teacher	T	PPA	S	I	AL	GP
I can read and write numbers with up to three decimal places.				Notes/Evidence					
I can compare the value of digits in the same place value position.									
I can order numbers with different numbers of decimal places.									
Next Steps									
) _____									
) _____									

T	Teacher	I	Independent
PPA	Planning, Preparation and Assessment	AL	Adult Led
S	Supply	GP	Guided Practice

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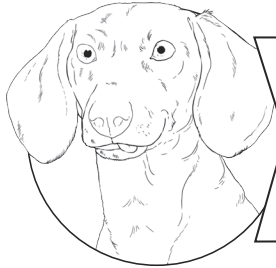
T	Teacher	I	Independent
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S	Supply	GP	Guided Practice

1.02	1.023	1.03	1.032	1.2	1.231
1.203	1.23	1.3	1.302	1.32	2.312
2.01	2.013	2.03	2.031	2.1	3.213
2.103	2.13	2.3	2.301	2.31	1.233
3.01	3.012	3.02	3.021	3.1	2.313
3.102	3.12	3.2	3.201	3.21	3.31



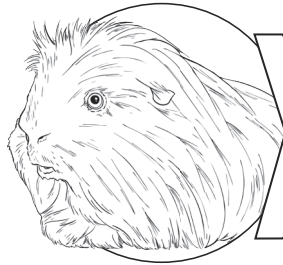
Pet Shop Decimal Ordering

I can order numbers with up to three decimal places.



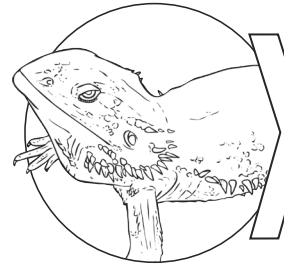
small dog

3.3kg



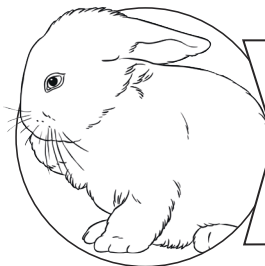
guinea pig

1.2kg



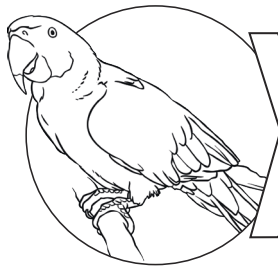
lizard

2.305kg



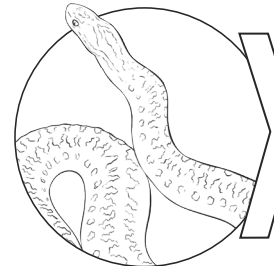
rabbit

1.23kg



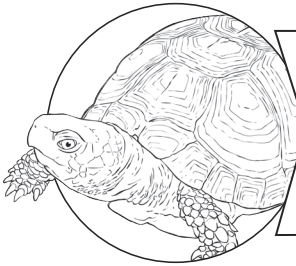
parrot

1.804kg



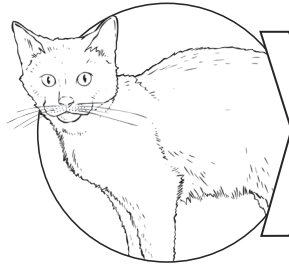
snake

1.843kg



turtle

2.35kg



cat

3.84kg

Animal	Mass

Put the animals in order from least mass to greatest mass:

1. Which of the animals' masses have four hundredths?

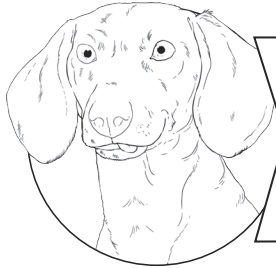
2. Which of the animals' masses have four thousandths?

3. What is the difference in mass between the lightest and heaviest animal?

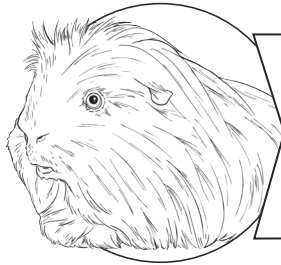


Pet Shop Decimal Ordering

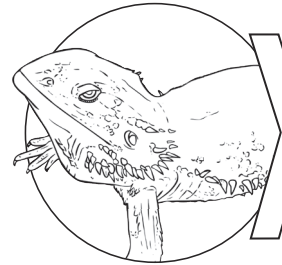
I can order numbers with up to three decimal places.



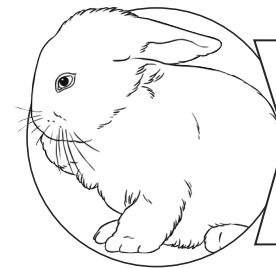
small dog
4.567kg



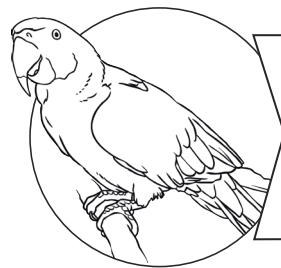
guinea pig
1.01kg



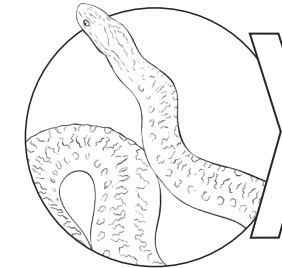
lizard
2.79kg



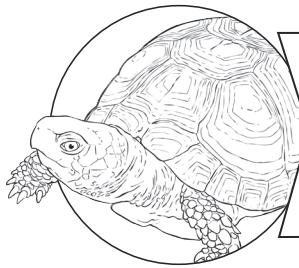
rabbit
1.11kg



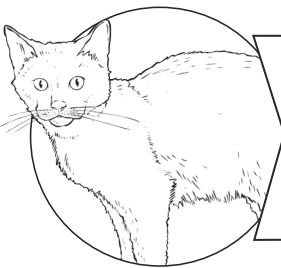
parrot
1.101kg



snake
1.011kg



turtle
2.719kg



cat
4.576kg

Animal	Mass

Put the animals in order from least mass to greatest mass:

1. Which of the animals' masses have one hundredth?

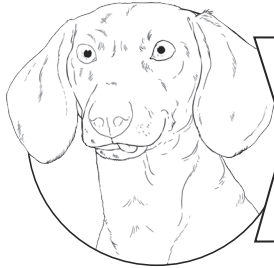
2. Which of the animals' masses have one thousandth?

3. What is the difference in mass between the lightest and heaviest animal?

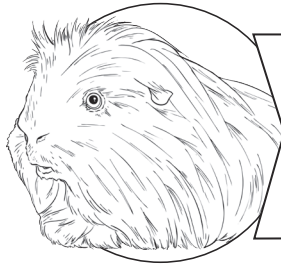


Pet Shop Decimal Ordering

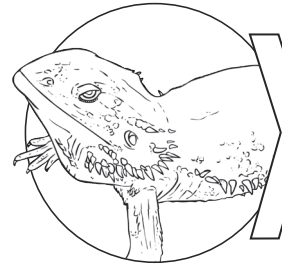
I can order numbers with up to three decimal places.



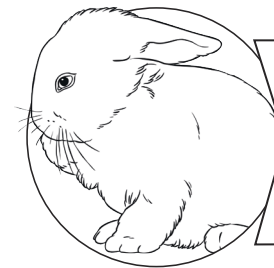
small dog
3.286kg



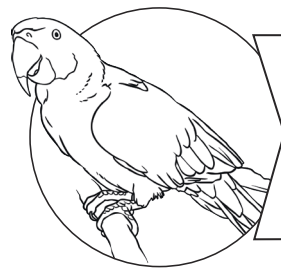
guinea pig
3.26kg



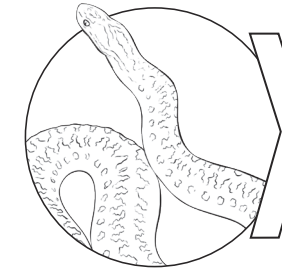
lizard
3.86kg



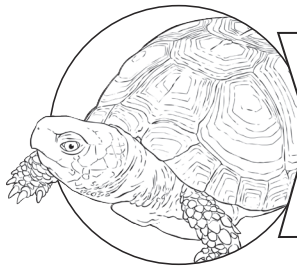
rabbit
3.268kg



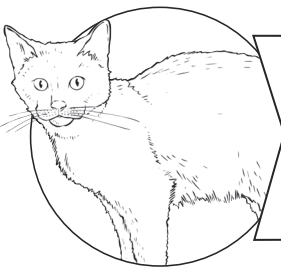
parrot
3.62kg



snake
3.61kg



turtle
3.826kg



cat
3.82kg


Animal	Mass

Put the animals in order from least mass to greatest mass:

1. Which of the animals' masses have six hundredths?


2. Which of the animals' masses have six thousandths?

3. What is the difference in mass between the lightest and heaviest animal?




1. Which of the animals' masses have four hundredths?
snake, cat
2. Which of the animals' masses have four thousandths?
parrot
3. What is the difference in mass between the lightest and heaviest animal?
2.64kg

Animal	Mass
<i>guinea pig</i>	<i>1.2kg</i>
<i>rabbit</i>	<i>1.23kg</i>
<i>parrot</i>	<i>1.804kg</i>
<i>snake</i>	<i>1.843kg</i>
<i>lizard</i>	<i>2.305kg</i>
<i>turtle</i>	<i>2.35kg</i>
<i>small dog</i>	<i>3.3kg</i>
<i>cat</i>	<i>3.84kg</i>



1. Which of the animals' masses have one hundredth?
guinea pig, snake, rabbit, turtle
2. Which of the animals' masses have one thousandth?
snake, parrot
3. What is the difference in mass between the lightest and heaviest animal?
3.566kg

Animal	Mass
<i>guinea pig</i>	<i>1.01kg</i>
<i>snake</i>	<i>1.011kg</i>
<i>parrot</i>	<i>1.101kg</i>
<i>rabbit</i>	<i>1.11kg</i>
<i>turtle</i>	<i>2.719kg</i>
<i>lizard</i>	<i>2.79kg</i>
<i>small dog</i>	<i>4.567kg</i>
<i>cat</i>	<i>4.576kg</i>



1. Which of the animals' masses have six hundredths?
guinea pig, rabbit, lizard
2. Which of the animals' masses have six thousandths?
small dog, turtle
3. What is the difference in mass between the lightest and heaviest animal?
0.6kg

Animal	Mass
<i>guinea pig</i>	<i>3.26kg</i>
<i>rabbit</i>	<i>3.268kg</i>
<i>small dog</i>	<i>3.286kg</i>
<i>snake</i>	<i>3.61kg</i>
<i>parrot</i>	<i>3.62kg</i>
<i>cat</i>	<i>3.82kg</i>
<i>turtle</i>	<i>3.826kg</i>
<i>lizard</i>	<i>3.86kg</i>

Fractions | Ordering Decimals

I can order numbers with up to three decimal places.		
I can read and write numbers with up to three decimal places.		
I can compare the value of digits in the same place value position.		
I can order numbers with different numbers of decimal places.		

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